

# THE HOT IRON SPARKLE

Newsletter of the North Carolina Artist Blacksmith's Association of North America



Volume 35 Number 4

Fourth Quarter 2016



*Picture from the annual Iron Pour at Jim Gallucci's shop*

Photo taken by Lee McKee

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**Member List Publication**

This is a notice of intent to publish the membership list for NCABANA in every third quarter "Hot Iron Sparkle" newsletter. The following information will be published: name, address, and phone number. If you would like to opt-out in part or in whole, please contact Jennifer Phillips, the secretary for NCABANA at the above email address.

**A Message from Our President**

Greetings All,

22<sup>nd</sup> FEB 2017

Millers Creek, NC

We've had a really good run so far this year in the blacksmithing world and after the Beginner's Weekend, Fireside Sale and Dovetail Extravaganza @ JCCFS gig, this horse is going to the barn for a well-earned and deserved hibernation.

First things first, though. NCABANA is a voluntary, dues paying organization and the information you provide at registration and maintain annually at renewal is retained for use in communication with our membership. Once a year in the Q3 newsletter, as a service to our members, we publish a partial listing of the contact information you have provided and limit this to name, street address and telephone number. Opting out of this listing is your declaration and responsibility by contacting our secretary who does a great job maintaining the roll. We do not share our membership list in any form with any other entity. I hope this clears up any and all misunderstanding on this matter. Another benefit of membership is the opportunity to post your business card citing your contact information to the membership page of the website.



I had planned on getting to spend some time at the Dixie Classic Forge this year and look forward to reading Marshall's report. We got pushed to the very start to complete the Heritage Forge at the State Fair. Through the efforts of too many to keep track of to mention able bodies, we basically put our part together in 3 days, starting Monday afternoon of fair week and working right up to and through opening day that Thursday afternoon.

However, I will mention one. Roger Barbour took on the heaviest lifting on the project by fabricating the forge and flue through installation. We survived a major design change when two weeks out it was determined that the smoke pipe would be re-routed through the gable end rather than straight up through the roof. Roger then took on the modifications necessary to complete the job and showed up with his crane and gear to get that part done. THANK YOU, Roger.

This is still a work in progress as the chinking on both buildings awaits better weather, the floor in the storage area needs to be poured, the demonstration area completed, and the sales area set up for presentation and display. Thanks to Eric Campbell and the sales crew for hanging that much canvas and not making it look like a circus tent.

I did get to spend a fair amount of time in the demonstration area and it is a fantastic space. With two complete setups each serving a 16 foot wide viewing windows, the opportunity to educate the public to the tricks of our trade was a non-stop all day attraction. Working with the Fairgrounds on this project has elevated our presence at the fair and we acknowledge the investment they have made in our future there. It is the first jewel in the crown as the Fair expands and improves the Heritage Circle area.

We have again traversed the state in our meeting schedule and look forward to doing the same next year. Thanks again to Blacksmith's Depot for hosting our Q3 meeting, the Triad Forge for Q2 and as always Oak Hill Iron for Q1. The Brasstown meeting is evolving into a two day event with a Saturday morning breakfast rumored to be in the works. The meeting at Peter Ross' Forge was a great opportunity to interact with a master. Jerry dazzled at Roger's for Q4.

From your generous donation to and in support of Iron-in-the-Hat, we are able to increase the funding to our scholarship program by drawing \$500 from our ample reserve and offer two more full scholarships at \$1,000 apiece for 2017. Please consider applying for one of these to enhance your forging skills.

Eric Campbell will once again be our representative to the SBA conference in May in Madison, Georgia. Please give him your support in that endeavor.

We will take a sponsorship position at Fire on the Mountain, the last Saturday in April (29th) in downtown Spruce Pine, NC to display and sell members' wares as well as introduce the chapter to potential new members.

The leadership of our organization continues to work together very well and we look forward to another great year promoting blacksmithing in the Old North State. Keep making things that please you and it's not too early to start packing for the Fair.

Lyle Wheeler, President, NCABANA

## Treasurer's Report

Dec 2016



The 4Q2016 financial summary for NCABANA is presented to the right. Overall, we remain in a good financial state. As many already know, this year the NC State Fair generously constructed a new Heritage

Forge building. NCABANA invested in outfitting the building in the amount to date as described below. I would like to thank all those who have contributed to the Scholarship fund, either directly or through Iron in the Hat. Your the generous donations enable NC ABANA to offer a fabulous scholarship program.

Jim Kennady, Treasurer of NC ABANA

<b>Business Checking Account</b>	<b>YTD</b>
Dues	\$4,900
Newsletter Printing & Postage	\$(2,377)
Newsletter Editor Fee	\$(1,500)
Insurance	\$(1,460)
State Wide Quarterly Meetings	\$(1,497)
Postage	\$(155)
Other	\$(163)
Heritage Forge Net	\$(1,950)
Net	\$(4,202)
<b>Balance</b>	<b>\$13,557</b>

<b>Scholarship Account</b>	<b>YTD</b>
Income	\$2,538
Scholarships	\$(1,000)
Net	\$1, 538
<b>Balance</b>	<b>\$8,116</b>

**Join NC ABANA**

Annual dues are \$30 (inside USA), \$40 (outside USA) starting January 1, 2016. Make check or money order payable to NC ABANA and send it to:

NC ABANA c/o J. Phillips  
97 Trinity Ridge Lane  
Banner Elk, NC 28604

For more information email: [northcarolina.abana@gmail.com](mailto:northcarolina.abana@gmail.com)  
or visit the NC ABANA website: [www.ncabana.org](http://www.ncabana.org)



## Secretary's Report



On February 11th, 2017, the board of directors for NCABANA held a quorum to discuss business for 2017. Board members present included Lyle Wheeler (President), Garret Dunn (Vice President), Jennifer Phillips (Secretary), Jim Kennady (Treasurer), Marshall Swaringen (Triad Area Blacksmith Chapter Leader), Eric Campbell (Southern Blacksmith Association Representative and NC State Fair Leader), and Andy Phillips (NC ABANA Member).

Approved motions were as follows:

1. The treasurer's report was passed along with NC State Fair renovations payments and a motion regarding a new financial institution for NCABANA's accounts.
2. Two new members were inducted as lifetime members after a unanimous motion: Roger Barbour and Robert Timberlake. Article about these members will be in a later issue.
3. Motion to support the Southern Highlands Handicraft Guild in their 2018 Exhibition.

Other business included planning the quarterly meetings for 2017, reviewing the treasurer's reports, discussing newsletters & scholarships, possibly updating the website, planning finishing touches to renovations on Heritage Forge, coordinating SBA Conference, planning events for 2017, and coordinating open NCABANA positions.

If you would like more information about the board meeting or a copy of the board meeting minutes in its entirety, please email Jennifer Phillips the secretary for NCABANA at [northcarolina.abana@gmail.com](mailto:northcarolina.abana@gmail.com).

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## New Members

Bill Schultz	Burnsville
Brandon James	Madison
Brandon Preston	Raleigh
Brandon Willson	Stem
Carson Cannon	Charlotte
Daniel Smith	Winston Salem
Hunter Ledford	Lawndale
Jake Martin	Fuquay Varina
James Hodge	Cornelius
Jay Jones	Elm City

John Simmons	Durham
JW Cheek	Apex
Lindsey Knott	Raleigh
Matthew Hier	Mooresville
Nicholas Proctor	Hickory
Robert Lamar	Burlington
Sam & Pamela Miller	Wilkesboro
Stephen Lee Starbuck	King
Tom Keister	Durham
William Powell	Burlington

# Publication Deadlines

	<b>Deadline to Submit Content</b>	<b>Estimated Dates Arriving to Members</b>
1 <sup>st</sup> Q 2017	March 25, 2017	April 15-22, 2017
2 <sup>nd</sup> Q 2017	April 30, 2017	May 21-31, 2017
3 <sup>rd</sup> Q 2017	July 29, 2017	August 20-31, 2017
4 <sup>th</sup> Q 2017	October 28, 2017	November 19-30, 2017
1 <sup>st</sup> Q 2018	January 28, 2018	February 18-28, 2018

## Regional Reports

### Wilkes Teaching Forge

Report and Photos by Dave Baker

WTF met at Gary Roath's Forge in Wilbar, NC on August 17, 2016. The group worked on making campfire tools and accessories. Lyle demonstrated the process and Gary coached from the sidelines. Fire and heat management was revisited. It was a small but interesting meeting.

September's meeting on the 17<sup>th</sup> was held at the Roath Forge again. Gary demonstrated how to make a square corner in clay, then the group tried in with steel. Gary also demoed a ginkgo leaf. Opportunities at the state fair was discussed as well as rules for selling. We are hoping for a good year with the new shop there.

WTF met at the Roath Forge on October 17, 2016. The group welcomed two new members; Michael Thompson and John Summers (*pictured bottom left*). Josh Cooper demoed making a hook for the new crew (*pictured right*). Michael and John set about making their first hook with help from the group.

It is always nice to see the sense of accomplishment in someone after they complete a project. Dave Baker brought some pictures for show and tell, a Dragon made for a customer (*pictured below*). Spring shows are around the corner and its time to start planning for them. Next meeting is on November 15, 2016 at Millers Creek.





## Southern Foothills Blacksmiths

Report and Photos by Ray Clontz

We have been having a good turnout for our meetings until the December meeting, where only some of the old timers who have been members for years but do not attend most meetings showed up. It was a good day to just catch up on what everyone had been doing. I don't think the forges were lit up until late in the day. We did not have a January meeting because of the snow. Everyone is looking forward to the February meeting and the 1<sup>st</sup> quarter meeting at Oak Hill Iron.



Michael Matthews and his son had brought some material to use to forge a brand to use branding for a project his son was working on. After completion, the brand was heated and used to brand some scrap wood. (Pictured are the brand in the forge to the right, Michael & his son working together on the bottom right, and the brand burning the wood to the bottom left.)



The pictures are from the November meeting. A member had brought in some 3/8" square cutoffs so there was a challenge for members to cut and forge some iron crosses – some are shown with hanging rings attached (to the left). Members used Steve's portable bandsaw to slit the material for forging (pictured top right).





As shown, the members worked on their projects. Many try their hand at forging railroad spikes into knives and a couple of the members forged them into shoe horns (very handy as you get older). (Pictured to the right is a member forging a railroad spike and pictured below is a railroad spike knife.)



## Triad Area Blacksmiths

Report and Photos Submitted by Marshall Swaringen

The year 2016 came to close with a great fourth quarter. We had lots of people asking about blacksmithing at the Dixie Classic Fair. The fourth quarter meetings have been full of new people. Our members have been busy working one-on-one (sometime 3 or 4) to show them how to do the basics. We have found that making a drive hook gives a good lesson in the basics and gives them something to take home and brag about. Our retention of newbies has increased greatly this past year. If this continues, we may have to add a third meeting date or build some more forges. Not a bad trouble to have.

The Greensboro YMCA Camp is adding blacksmithing to their camp schedule. We have



assisted them in budgeting for their tools and equipment. Ian Thomsen with be giving the counselors training before the season starts. This will expose a lot young people to the art of blacksmithing.

Joe Allen and Keith Roberts spent the first weekend in November at the 100 Years of Progress Festival in Carthage, NC. Not sure about the lady in black and red, but looks like they were not hammering, I mean, blacksmithing all the time!! (Pictures are as follows: top right is Joe at the main set up, bottom left is Keith forging & telling tall tales, bottom right is Joe showing off some fancy fork forging, TO BE CONTINUED ON NEXT PAGE...





and from left to right is Keith behind bars, Joe & Keith “working hard”, and last is Joe actually forging.)



Joe was also busy with the Jeb Stuart Civil War Reenactment in Ararat, VA. (pictured to the right is Joe forging with onlookers); Autumn Leaves Festival in Mt. Airy, NC (pictured at the bottom of the page is Joe’s set up for forging); Old Fashion Days at Copeland Baptist Church in Dobson, NC; and Gentry Middle School in Mt. Airy, NC (pictured at the top of the next page).



Keith Roberts has been teaching Horne Creek employees the basics of blacksmithing. It is an interesting place to visit to see what homesteading was like years ago. They have a donkey named Willis. Keith’s wife keeps talking and yelling at the Donkey but she keeps calling it Keith. Keith does not know if him and the donkey look alike, act alike, or smell the same! I would say the latter two because the donkey is better looking than Keith.

The New Year fell on Sunday, the shop was opened on December 31 to hammer in the New Year. There







were fifteen people present and made an assortment of items with a couple of demonstrations.

Our meetings are averaging better than twenty people. The Tuesday demonstration meeting has been well received by all. It is good to see everybody act like good students; watch, listen, and then do what was demonstrated. If you have something that you like to see demonstrated or be a demonstrator please contact Marshall Swaringen – marshall@swaringen.com or (336) 998-7827.

The second quarter NCABANA meeting will be at the Dixie Classic Fair Grounds Blacksmith shop on June 24th. The demonstrators have not been finalized. But the food will be BBQ until somebody complains. If you would like to demonstrate at a state meeting, please let me know.

Triad Area Blacksmiths will open our shop on November 20, 21, & 22 to all NCABANA

members that would like to work on Christmas presents, small projects, or just to hang out. Andy Phillips will be on hand each day along with other members. This is his fifth or sixth year hosting the event! Bring your materials and join together for some hammering fun. There is always bottled water in the shop.

To start 2018 off the right way, Keith Roberts will open the shop on January 1, 2018. This is a good time to bring snacks to share and hammer away. Keith will stay as long as he does not get hungry. And he would rather hammer than eat!!

I am sure that I have missed some activities of our members. Please send information and pictures of any events in which you participate. I will do my best to take pictures of our meetings also.

## NCABANA Member Classifieds

**Cindy Alexander  
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### Forging Colonial Ironwork

Jerry Darnell now has three books for sale entitled *Forging Colonial Ironwork I, II, & III*. The books are a compilation of over 22 years of teaching notes at John C. Campbell Folk School and various conferences throughout the US. The first book is about 120 pages both sides and divided into 4 chapters; Colonial Lighting, 18<sup>th</sup> Century Hearth Equipment, Early American Hardware, and Hooks and Hangers. There is a mix of 63 different projects from simple to advanced.

The cost is \$20.00 each plus 6.75% tax and \$10.00 for shipping and handling. Order by phone, e-mail or visit the salesroom M-F from 10 to 5 and on Sat. 9:30-5.

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(910) 464-2636 (House)

### Opting Out of a Hardcopy

Due to the increasing prices of postage and printing costs, NCABANA would like to make receiving a hardcopy of the "Hot Iron Sparkle" optional. Some members have expressed an interest in the preferred online copy because it is in color and better for the environment. If you would like to receive your "Hot Iron Sparkle" newsletters via email instead of receiving one in the mail, please email Jennifer Phillips, the secretary for NCABANA, at:

[northcarolina.abana@gmail.com](mailto:northcarolina.abana@gmail.com)

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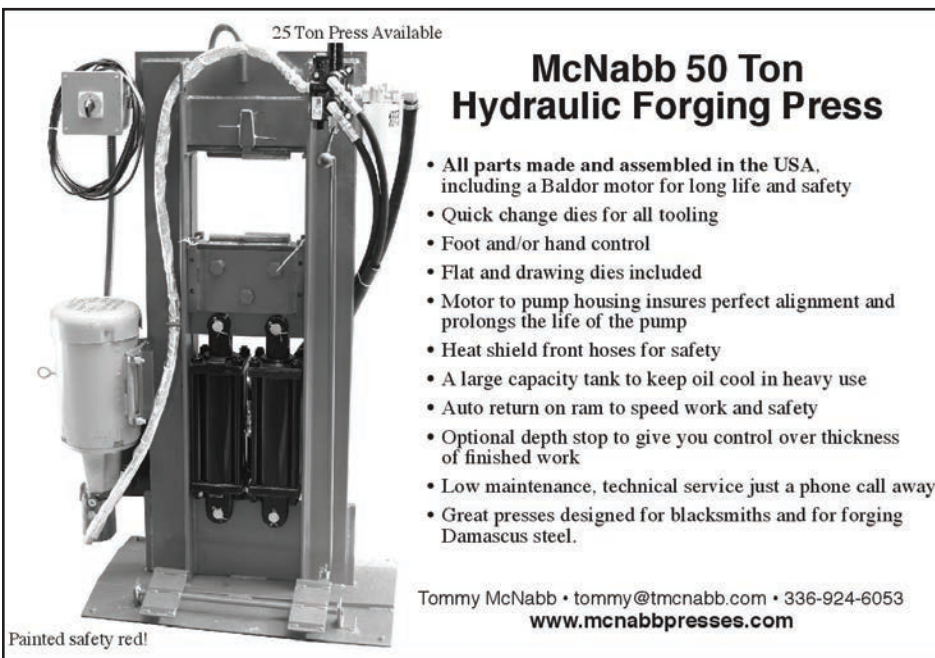


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## Iron Pour

Photos by Lee McKee

Article by Jennifer Phillips

Every year in early February, the Tri-State Sculptors host an annual Iron Pour at Jim Gallucci's shop in Greensboro, NC. This all day event gives anyone (with \$15 in their pocket) the opportunity to create a sand mold that will be used later in the day for the iron pour. With lunch included, I have to say that this is the best valued iron pour I've ever seen and as the wife of a blacksmith that is truly saying something.

While I wasn't able to attend this year, I was able to borrow pictures from some kind friends who were able to attend. I've tried to put them in order so you get a better feel of the excitement as it progressed throughout the day.

Even if you aren't able to attend the Iron Pour, I would suggest that you visit Jim's shop sometime (during business hours) just to see all of his amazing sculptures on display. I only included a couple of those here to peak your interest.

Thank you again to all who attended and for those who made this amazing day possible. I look forward to attending in the future.

*Our first pictures are of the sculptures at Jim Gallucci's shop-space. The top right is a branched archway with a door and decorative maple leaves around it. To the right is a massive tree approximately 20' tall with rhododendron leaves on every branch. Make note of the tiny person circled on the bottom left of the picture.*



*To the left is a picture of the furnace used to heat the molten metal. Look at the giant blower off the side! I also want to point out the safety sand on the ground for any spills later on. I know we've all been there before where you're forging and all of a sudden the ground's on fire from a stray leaf or stick.*

*On the very bottom to the right is a picture of the molds ready and waiting for the molten iron. The picture above the bottom one shows the assembled team as they wait for the metal to heat up. That is some serious safety gear they're wearing!*





*In the picture above, you can see the workers chipping away at the stopper that is holding the molten iron inside the furnace. Then on the top right is the furnace roaring as the metal starts to flow outwards, slowly at first.*

*To the right, the iron finally starts to flow as it takes two workers just to hold the heavy pot. That's also probably another safety precaution!*

*Next up on the bottom right is a picture of the larger molds being poured. This continues on to the picture on the bottom left. Check out the little shovels!*







*In the picture to the top right, the iron is pouring smoothly but still the sparks are flying. Then in the picture directly above, one of the workers has the very difficult job of putting the stopper back in. Check out that spatter!*

*To the right and bottom right are pictures of the individual molds getting metal poured in. Then to the bottom left is one final picture of the bucket getting refilled. Those workers sure had a long, hard days work but did an amazing job with the teamwork. With every bucket carried by two people and additional workers having to spread the molten iron, they worked together like pros.*







*Again, a big thank you to Lee McKee and Jam Coshatt for the pictures. The picture to the left is them keeping warm by the fire. Not that it was very hard near an iron pour.*

*Finally, our last picture is of Lee's finished pour piece. You can really see the raised scroll details on the sides of the bowl.*

*Don't forget next year in early February there will be another iron pour at Jim Gallucci's shop in Greensboro. I'll make sure to send out the details to the google group when I know them. Happy forging . . . & pouring!*

### **Pasture Party Advertisement**

Every year on the last Saturday in February is the annual Dan Boone Pasture Party. This year it falls on February 25, 2017 and runs from 9:00AM - 4:00PM.

Requirements are that attendees bring something for Iron-in-the-Hat and buy tickets for the Iron-in-the-Hat raffle. Items will be collected at registration.

This year's demonstrator is Phil Heath, who is always a favorite. There will also be craft programs for spouses and children along with lots of tailgating, which all are welcome to participate in. Lunch will also be provided, like always.

If you would like a lodging option, the Best Western Plus of Crossroads, VA is offering discounted rooms to blacksmiths. Call them in the name of the Pasture Party at (540) 831-1700 to reserve your room for \$99 a night.

Registration deadline for the event is February 15<sup>th</sup>. Judy and Dan Boone look forward to seeing everyone again at this annual event. If you miss this year's, make sure to put it on your calendar for next. Hope to see ya'll then!

## Annual Christmas Gift-Making Workshop

Article and Photos by Andy Phillips

Every year during the week of Thanksgiving, I open the doors to the Triad Blacksmith's shop (*pictured below in the quiet morning*) at the Dixie Classic Fairgrounds for people to come and work throughout the day on the Monday, Tuesday, and Wednesday proceeding Thanksgiving.

This year while the crowd was small, we were still able to make some great items. I showed a few people how to make Christmas tree ornaments out of iron and even made a few that resembled decorative balls. A couple of guys brought their own projects to work on and there was even one newbie who forged his first S-hook.

Overall, we had a bunch of fun forging and talking; not sure which was more fun. Thanks to all who came and I look forward to seeing you all again next year on November 20-22, 2017.

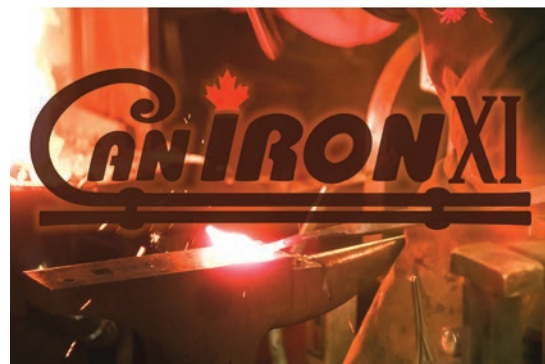


### CanIron XI Advertisement

For those that don't know, CanIron is the national conference for artist blacksmiths of Canada so similar to the ABANA conference. This year's festivities will take place from July 4-7, 2017 in Cloverdale, British Columbia.

Their featured blacksmiths include: Douglas Pryor, who does sculpting, raising, chasing, and repousse; Glenn Moon, who works in industrial forging, architectural ornamental ironwork, and public art; Dorothy Stiegler, who focuses on sculptural architectural steel & bronze forgings and joinery; Benoit Laurent, who combines design elements from Europe & the West Coast; and so many more.

Registration information is available on their website ([www.caniron.ca](http://www.caniron.ca)) along with more information coming soon on the particular workshops available and even more demonstrators. So check out their website and I hope everyone has a great time again this year!





## Featured Articles

### Forging Non-Ferrous Metals

Article & Photos by Jim Guy

Reprinted with permission from the New England Blacksmiths

There are a number of beautiful examples of ironwork that uses copper or bronze as a way of adding color or contrast to traditional iron work. This is something that I feel will add another dimension to my work. The “Forging Non-Ferrous Metals” class at John C. Campbell Folk School has provided a good grounding in the basics to make that happen. The instructor, Lucas House, led us through forging aluminum, silicon bronze, naval brass, copper, and stainless steel. Each day begun with a forging demonstration of one of these metals, leaving us the rest of the day to work with a metal of our choosing. Lucas also reviewed other topics which are important to completing any non-ferrous work. These included silver soldering as an alternate means of joinery, finishes and patinas.



Figure 1: Snail (Copper and Stainless Steel)

What surprises me is that once you overcome some key differences with these metals, the process used to forge it is very similar to steel. As a result, the following descriptions will focus on identifying these differences such as the right forging temperature and how the metal behaves.

#### Silicon Bronze

The most common silicon bronze alloy used by blacksmiths is 655 (also known as C655 and C65500). Silicon bronze is corrosive resistant and has relatively good strength.

**Forging temperature:** Forge silicon bronze at a dull red in a light area.

**Forging tips and Observations:** Silicon bronze does not generate scale. There is a great deal of blacking that must be removed before a finish is applied. Transfers heat quickly but not as quick as aluminum. Fractures when heated too hot. Works like steel when at temperature. When buying silicon bronze: It is typically priced by pound regardless of shape. Round stock is always cheaper than other shapes.



Figure 2: “J” hook in aluminum, copper, naval brass, and silicon bronze

#### Copper

The copper alloy used in class is copper 101, a low oxygen alloy with a copper content of 99.99%.

**Forging temperature:** Slightly cooler than silicon bronze, a faint red.

**Forging tips and Observations:** Will conduct heat instantly. It is a most forgiving metal that can basically forge cold. Copper blackens when forged but does not form scale.

## Naval Brass

464 Naval has many good qualities such as a pretty color, corrosion resistance.

**Forging temperature:** Slightly cooler than silicon bronze, a faint red (basically the same color as copper's forging heat).

**Forging tips and Observations:** Work small points cold. Butter soft at the high end of forging temperature. NOT forgivable. Will fracture if forged too hot or too cold.

## Aluminum

We used 6160 aluminum in our forging. This is one of the most common alloys of aluminum for general-purpose use.

**Forging temperature:** Aluminum at the correct forging temperature does not give any visible sign of temperature. Identify the correct temperature when: a black sharpie marker line on the metal disappears or a piece of wood chars or smokes. Aluminum may feel like it hits a sticky place on the anvil surface. [See Figure 3 for some too hot aluminum.]

**Forging tips and Observations:** Aluminum does not generate scale. There is some blacking, but not much. Transfers heat quickly (in other words, keep your tongs handy!) Fractures when worked too hot. Aluminum can work-hardened (bar stock comes work hardened unless ordered annealed). Anneal by heating and let cool (may air cool or quench immediately after heating, doesn't matter). Annealed aluminum can be forged cold to some extent.

## Stainless Steel

**Forging temperature:** Forge stainless steel at a bright yellow, almost white.

**Forging tips and Observations:** Stainless requires more heat than steel. It is harder to move metal at forging temperature than steel. It does not transfer heat quickly and blackens when forged.

## Joinery

Traditional joinery techniques apply to all these metals (such as collars, rivets, mortise and tenon joints). Most can be welded via TIG and MIG.

## Finishes

Finishing the metals discussed above follow a similar process. First remove oxides, then apply a patina (optional step), finally apply a finish.



*Figure 3: 3" Aluminum rod forged at too high a temperature*



**Oxide removal:** The only option for aluminum is to brush off the black oxides with a stainless steel brush. Use an acid bath with the other metals, it will save a lot of time.

The class used muriatic acid undiluted for its' acid bath. Take two plastic containers big enough to hold the items to be cleaned. Put muriatic acid in one and water in the other. Soak the items for an appropriate amount of time, up to a couple of minutes for naval brass, silicon bronze and copper. Then dunk them into water to remove any residual acid and stop further etching. After an acid bath, brush with a brass brush or fine steel wool to remove any remaining black oxide and to polish the surface.

Stainless steel is a bit different. You will need to wire brush stainless before the acid bath to remove any loose black oxide, then let sit in the acid bath overnight. Warning: etching stainless steel after etching copper or silicon bronze in the same acid bath will copper plate the stainless steel.

Aluminum will dissolve in muriatic acid if given enough time (5 to 10 minutes). However, if you just dip it in quickly, will etch a nice gray finish.

## Patinas

Copper, naval brass, and silicon bronze do not really need patinas and will naturally develop a pleasant patina over time (silicon bronze will turn a nice dark brown).

In class, we used patinas from Sculpt Nouveau. Traditional Black Magic for copper, naval brass and silicon bronze. And Birchwood Casey Aluma Black A-14 for aluminum.

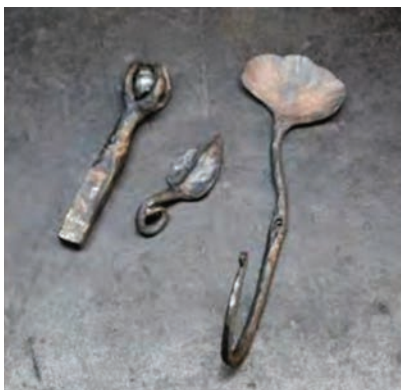
When using patina's, don't just use it out of the bottle. Put it in a cup to minimize contamination. From there, just wipe it on and then wash it off.

- >With steel: wash off immediately.
- >With silicon bronze, wipe off after a few seconds and then rub with steel wool.
- >Naval brass turns black instantly!

We used liver of sulfur in our recent copper class. This seems to behave similar to the Sculpt Nouveau patinas. Directions for all of these patinas recommend using them hot. We didn't in class and had good controlled results.

## Finish

Most finishes used on ironwork can be applied with these metals: clear lacquer, min-wax wipe-on poly, beeswax and Johnson's paste wax are all good. Consider using no finish to allow natural weathering.



*As forged*



*After acid wash*



*After brushing*

## Sources

### Metal:

Online metals (<https://www.onlinemetals.com/>) Atlas metals supply (<http://www.atlasmetal.com/>)

### Finishes and Patinas:

Sculpt Nouveau (<http://www.sculptnouveau.com/>) Source for:

>Traditional Black Magic: used in class on naval brass and silicon bronze

>Birchwood Casey Aluma Black A-14: used on aluminum

Rio Grande (<https://www.riogrande.com/>) source for: Silver solder and supplies and patinas

Muriatic acid is available from Home Depot and Lowes. Look for the product used for cleaning floors or adjusting swimming pool ph levels.

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## Heart Wall Sconce

Article & Photos by Jymm Hoffman

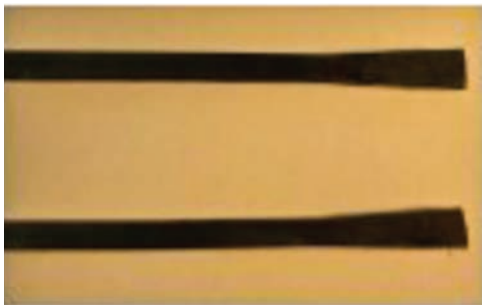
Reprinted with permission from *The Forge Fire*,

Newsletter of the Indiana Blacksmithing Association

Materials: 3/8" Hot Rolled Square, 18" long  
16-18 gauge sheet, 5" x 4"  
2 1/2" long rivets (3/16" diameter or smaller)

Since many people know much of my works are historical reproductions, I felt it is important to include a disclaimer. This is **not** a copy of a historical item. It is an item that Mark Bokenkamp of Loudonville, Ohio showed me in the early 1980s. The original creator is unknown but believed to have been alive in the 1980s.

I normally make a pair of these at a time and they have sold more often as a pair than singles. Therefore, I normally start working on both at the same time, heart shapes first. I have found trying to match every step along the way is easier than completing one sconce then trying to match the completed one. The following dimensions are approximate; the key is making both alike. Some have heard me answer questions about how long or how thick by saying "about that much".



Upset on end of each 3/8" bar to about 1/2" on the end, tapering back to the 3/8" bar over about 1 1/2".

Start spreading to form an approximate outline of the sides of the heart shape. I use my cross peen to fuller out most of this, finished with the face of my hammer to take out the marks and smooth it up. Some tricks in this process include working both sides as I spread it out. Also, a trick I learned from Peter Ross, Master Blacksmith at Colonial Williamsburg, is to flatten the peen on my hammer. Rounded and very narrow peens end up cutting the metal as

it gets thinner. One of the first things I do to a factory made peen is flatten most of it, leaving a radius so there are not sharp edges. Also, another important trick is to focus the blows at the center and work out. Leave the edges thicker than the center until you are close to finishing spreading out the metal. Once I have the width of the heart to my satisfaction, I cool it off to start on the other end.

I taper both pieces down to about 1/4" square for about 5" long. I knock the corner down into octagon. I then put a shoulder on the end and punch the hole for a rivet. Bend and upset the corner for the candle holder and wax cup.

Bend the curve around my horn. After getting the first curve to my liking, I mark the horn with soapstone as a guide for the second.





Twist both pieces. I normally mark my vise with soapstone where the end of the first sconce was held. For the other end, I will set a pair of dividers as a guide for the distance of the twisting wrench or simply keep the other sconce near by. Once the twist is nice and even, I bend the pieces so that they lay flat on the wall from the top of the heart through the twist to the start of the curve away from the wall. Let these parts air cool.

Next, I start on the wax cups. I use my divider to strike two 4" circles, with a deep center punch mark in the sheet. I then trace my candle holder pattern and also put a deep center punch mark in the center.



Cut out the circles and candle holders with a shear. Clean off all burrs and clean up the center of the candle holder with a 1/2 round file.

Sink the wax cups (technically raise them down) into my wedge block. I start at the outside edge and spiral down to the center. Take out any wrinkles as soon as you see them.

Peen the veins into the candle holders with a chipping hammer, cup them in the step of my anvil. Curl the ends, then finish forming them around a 3/4" diameter rod. Let air cool.

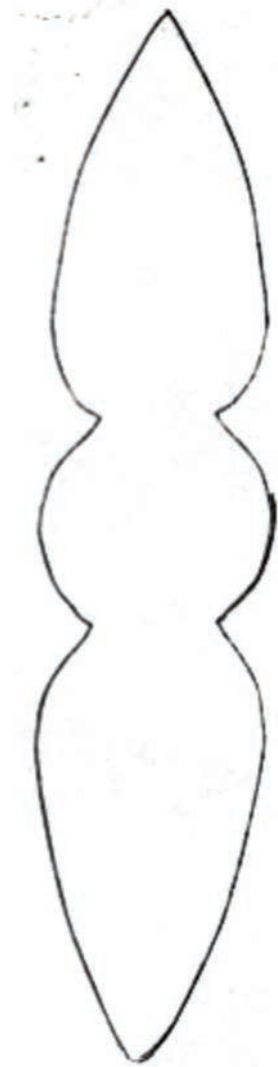
Back to the heart shape at the top of the sconces. I use a half round file to finish the outside shape as well as cut the "V" into the top of the heart. Then I hot punch the nail holes. Let these air cool.



Drill or cold punch the holes into the candle holders and wax cups. Assemble the candle holders and wax cups to the wall part. Put the rivet on the 3/4" bar that is still in the vice on the screw. Put the pieces on over the rivet. You can then get things to line up relatively well as you peen down the rivet.

Finish options: Cold application of tongue oil; a mix of equal parts of linseed oil, turpentine, and white vinegar; paste wax; or some kind of clear spray.

These always look best when mounted with hand forged nails.



*Template for Candle Cups  
(Actual Size)  
Pictured to the Right*

## Book Review

Article by Mike Otis

Reprinted with permission from *Forge Facts*,  
Newsletter of the Rocky Mountain Smiths

*The Home Blacksmith* is a how-to book of 222 pages with great color pictures and good text explanations. There is a glossary in the beginning and a list of resources near the end followed by an index.

In the tool-making chapter are instructions for coal forge tools — a good place for a beginner to start. The rest of the chapters are:

1. Understanding Blacksmithing Basics
2. Setting up Shop
3. Steel Types and Heat Treating
4. Basic Blacksmithing Techniques
5. Advanced Blacksmithing Techniques
6. Making your own tools
7. Projects for the Farm
8. Projects for the Home
9. Selling your Items

Included inside *The Home Blacksmith*:

- A look at blacksmithing through the ages and a discussion on how metal moves
- Essential considerations, equipment and tools for setting up your own blacksmithing shop
- The different types of steel and how to handle them
- Blacksmithing techniques from beginner to advanced
- Instructions for 40 projects, including tools, such as chisels and punches; decorative items for the home, such as drawer pulls and candle holders; and farm implements, such as gate latches and hoof picks.

*The Home Blacksmith* is a good book to complement other in-depth how-to books and is worth a look. NCABANA members in good standing may check it out from our library after the first quarter meeting.

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## Tongs I Have Known

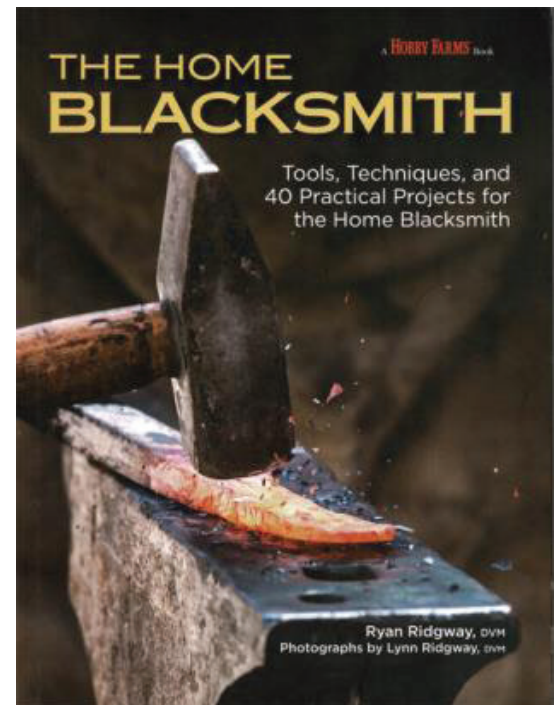
Article by Joe Marsh

Reprinted with permission from *On the Anvil*,  
Newsletter of the Philip Simmons Artist Blacksmith Guild

In August 2016, I took a week off from my employment to go to the John C. Campbell Folk Art School in Brasstown, NC. The instructor was Lucas House, from the Raleigh area (see [www.ironhouseforge.com](http://www.ironhouseforge.com)). *He is a rather young man but carries a vast knowledge in the craft. The course, entitled Tool, Tools, Tools, piqued my interest. Since I figured if I could make the tool, then I should also be able to make the item the tool was designed for.*

Instead of waiting until Monday a.m. to begin the class, Lucas had the ten of us fire up the forges on Sunday p.m. and begin work. The project was a hook with a scrolled end. Since we all had different levels of experience it gave him the clues of where we each were in our skills.

Monday is when the work began. The first order of business was drifts and punches. I ended up creating a couple of “center” punches and a couple of “animal eye” punches, along with a “drift” punch. We discussed and did some heat-treating and tempering. Albeit tempering on a tool that is to be used on a heated workpiece is sometimes a wasted effort.





Tuesday and Wednesday was for tongs. Now you don't have to be exposed to the blacksmith trade very long before you realize that tongs come in many shapes, sizes, and functions. If you stay at blacksmithing, you will see your collection of tongs grow exponentially compared to your other tools. So for that reason I listened very carefully when Lucas began discussing this subject.

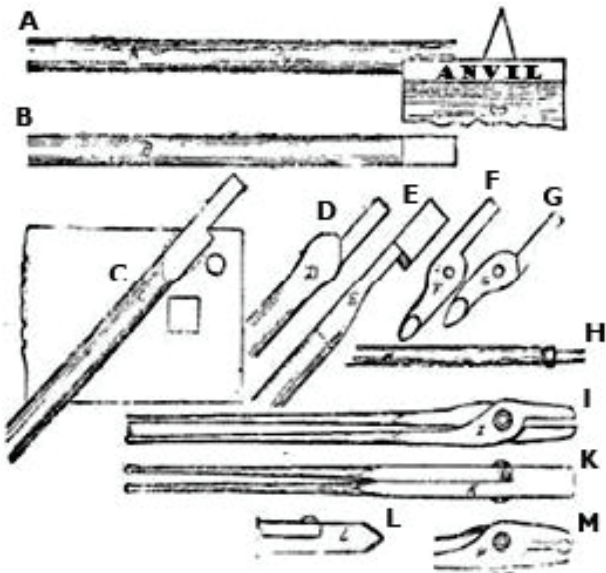
In short, when making tongs you actually make a tong, two times. In my imagining how the process worked I thought you made two pieces in a mirror image of each other. Not so. This is the process that I learned...

We will start using a 1/2" round stock. It is not necessary to use tool steel for this as heat treating and tempering will not be necessary. Mild steel is usually the best option since you may have to modify the jaws after construction. Along with that, mild steel is usually more forgiving in the forge.

Notice the three primary parts of the tong (*pictured to the right*). The divisions represent where the dimensions are set by the edge of the anvil or fullering tool you may be using.



In the next illustration (*pictured below on the left side*), you should see that "A" shows the work piece set at the point where the reins meet the boss/bearing. "B" shows the result of that. The best way to obtain that is with hammer blows that land half on and half off the anvil face. Notice also the workpiece is on the near side of the anvil.



Step "C" shows a counter-clockwise, 90° rotation, of the workpiece. (*Should you be a left-handed person, you may wish to rotate clockwise for this step.*) Notice here the half blows will be on the far side of the anvil and the workpiece positioned at a 45° angle.

Figure "D" shows the result of how the workpiece should look. Here is when you would repeat the initial steps in order to get the next tong.

When striking the workpiece you should try to reduce the thickness to half the original thickness. This is where much care is to be taken. Too much reduction could cause the boss/bearing to be too weak. Too little reduction will cause the two pieces not to fit together correctly.

To make the jaw, rotate again 90° counterclockwise and use half blows on the far side of the anvil (note "E"). *This step will determine the material you will have for the reins.*

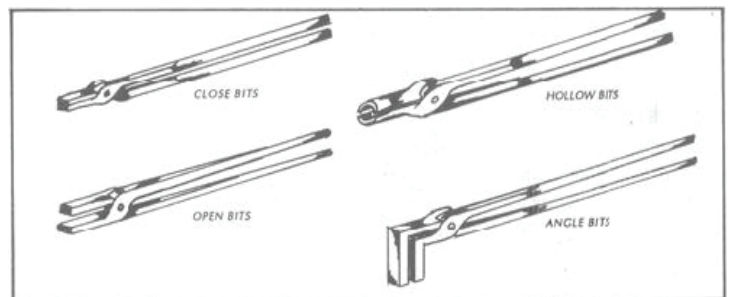
After completing the second tong and getting the two pieces to be close to symmetrical, it is time to draw out the reins. This can be done by making a square out of the round

stock and draw it out by fullering. When drawn to the desired length (14-18"), round off the corners to be rid of any sharp edges. True up each tong and get ready to rivet.

Making the rivet hole can be done by drilling or by punching. Drifting a punched hole will offer the advantage of keeping more material on the bearing. Also, if you are doing this job with limited tools you may only have a punch and drift. It is not critical to get the hole perfect. You do want to try to get the hole close to center of the bearing. (*I'll not go into the process of punching and drifting a hole in this article.*)

After the hole is made, choose a rivet that is slightly smaller than the hole and whose length extends beyond the opposite side. That length should equal the diameter of the rivet (*i.e. a 3/16" rivet should extend 3/16" beyond the opposite side*).

The next step is where you create the shape of the jaw (*pictured to the right are a few options*). The variations of jaws are as great as the number of blacksmiths. You may need a particular shape only for a single use. Some shapes can be functional for multiple



uses. It is important to get each of the two tongs as close to symmetrical as possible before setting the rivet.

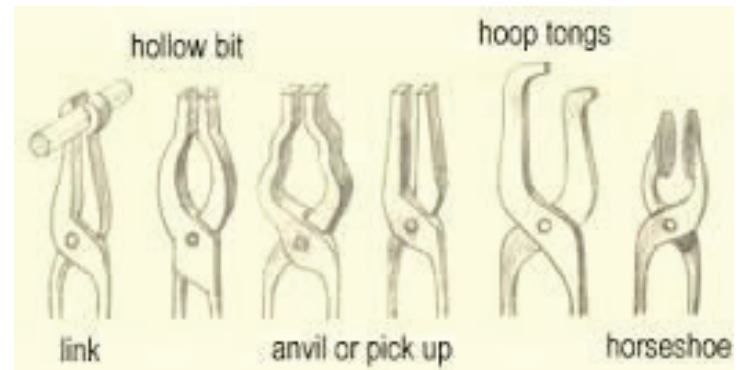
In setting the rivet, you can do it cold or hot. If using the hot method, the rivet is placed in the hole and the two tongs and rivet are heated together. Dark red heat is sufficient. (Too much heat can distort the shape of the bearing.) Strike the heated rivet; this will cause the rivet to upset and fill the hole. If the tongs do not pivot, heat again to red and water quench. During the quench, begin to work the reins back and forth. They should loosen. This will also allow the two bearing surfaces to marry up and begin to work together.

On a side note: *If the pivot/bearing surfaces are too loose, strike down on the rivet with the opposite end on the anvil face. If they are too tight, strike down on the rivet with the opposite side over the pritchel hole.*

Another series of heats can give you the opportunity to adjust the jaws so they will function for the intended workpiece.

I mentioned early on using a 1/2" round stock. However, small tongs, such as a pick-up tool, can be made with 3/8" stock. Heavier tongs can go as large as you wish. Only, bear in mind that your hands have to wrap around the reins. In the case of needing a larger jaw, you can build the bearing and jaw with a large stock and weld the reins with a smaller stock. *(Picture to the right shows different style tongs)*

Thursday and Friday was hammer making. This required drifting a hole for a handle and heat-treating. That story will have to come at another time as you are probably dozing right about now.....ZZZZZ...Joe Marsh



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## SBA Group Project Info

Article Information Provided by Eric Campbell

The Southern Blacksmith's Association biennial conference is coming up May 18-20, 2017 in Madison, GA. At every conference is a group project done by the organizations responsible for the hosting the conference. This year's project is a gate with a ring to be done by each hosting group. *(Rough drawing of the concept on Page 25.)*

The rings are to be 1/4" x 3/4" with a 12" outside diameter. Something Philip Simmons-like should be done as a center decoration in each ring with an identifier of sorts labeling NCABANA's ring. Philip Simmons has crafted more than 500 pieces of ironwork in the city of Charleston, SC alone and is a world-renowned master blacksmith. He is also credited with the first use of animal form in blacksmithing by an African American. *(Simmons is pictured to the right, photo courtesy of Ancestral Connections website Adiana.)*

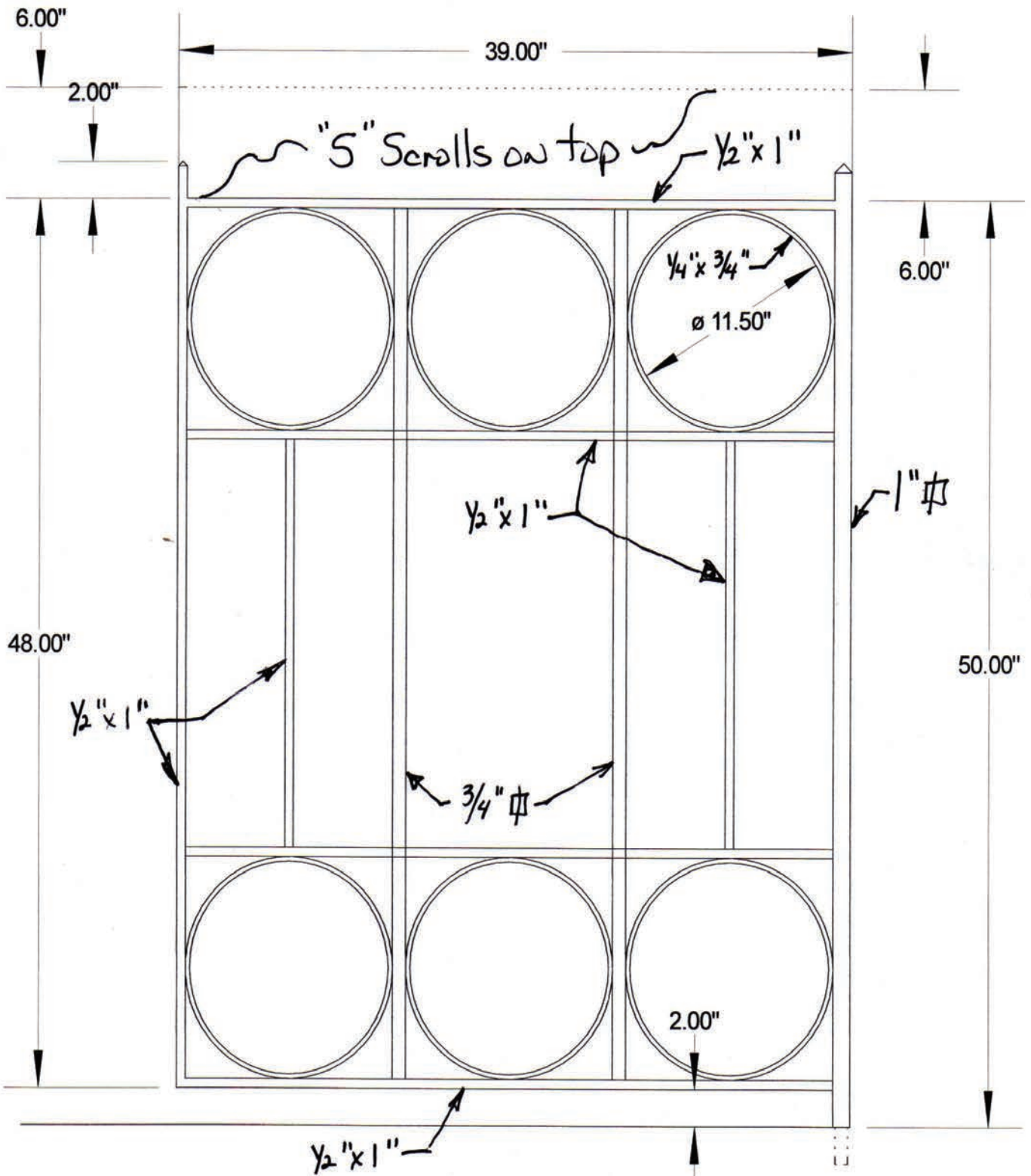


At the annual Board meeting for NCABANA in February, the board members discussed the design and decided our project will have a Simmons-style snake in the center. A snake was chosen because at the annual Fire on the Mountain Festival in Spruce Pine, NC; there is a competition for forging the best snake open to all entries and that seemed like a good representation for North Carolina.

At the time of this publication, we have a volunteer to make our ring. The only area where NCABANA isn't completely covered for the conference is for the hammer donation. I look forward to seeing many of you at the conference. In the meantime, I am always available via email ([solvarr@gmail.com](mailto:solvarr@gmail.com)).







Madison Gate

12/1/16

## Anvil Repair

Article by Robb Gunter & Karl Schuler

Reprinted with permission from *Forge: Dedicated to the Revival of the King of Crafts*,  
 Newsletter of the Vancouver Island Blacksmith Association

*Developed with the help of several metallurgists and welding engineers at Sandia National Laboratories and used on several hundred anvils with great success.*

	<u>Anvil Buildup</u>	<u>Hardsurfacing Anvil</u>
AFM		AFM 800
Arctec	41 CNMg	60 Ecoface
Alloy Rods	Super WH	
Certanium	245	267
Eutectic	3205	N2
Hobart	MC	TUFANHARD 550, 600
Lincoln	Wearshield 15CrMn	
McKay	Chrome-Mang	HARDALLOY 58
Messer (MG)		760
Rankin	RanMang3	
Rexarc	MN-100	
Stoody	2110	21 / 1105

### Preparation:

1. Expose good, clean material. Grind through all folds or fractured chips.
2. Chamfer any homes or severe depressions in preparation for welding.
3. Preheat a wrought iron base anvil to 400 degrees and a cast iron base anvil to 450 degrees.

A propane-fired weed burner works well to preheat the anvil. Verify the temperature with a Tempil Stick crayon (available at a welding supply store), which melts at a given temperature (i.e. 350 degrees, 400 degrees, 450 degrees). Be careful to not overheat the anvil, particularly the heel and hardy hole area, as it's thinner cross-section heats faster than the more massive parts.

### Build Up:

For a wrought iron or cast steel anvil, use Stoody 2110 (or equal) 3/16" rod (DC reverse works best, however, it will run AC); (Hardfacing Stoody 2110 electrodes are designed for build-up of austenitic manganese parts subject to high impact loading. Modified high chromium - high manganese steel which combines toughness and wear resistance.)

Unlimited passes. Except 45 Rockwell C as welded.

If the hardy or pritchel hole areas need repair, inserting a chill (or form) made of 1/16" sheet copper into the respective hole before welding. This will save a lot of grinding and filing to true up the hole.

### Hardsurfacing:

For no more than three passes (or layers thick) use Stoody 1105 (or equal) 1/8" rod (DC reverse, or AC); expect 50 to 52 Rockwell C as welded, ideally consistent with the original hardness of the tool plate.

*Stoody 1105 a particularly good match for the W-1 tool steel tops of most anvils. Designed for use on carbon and low alloy steels, it contained alloying elements in its coating. Provides good weldability and a high deposition rate. 1105 can be applied in stringer or weave beads using DC current, either polarity. Not recommended for use on manganese steel or cast iron. Typical applications include tractor idlers and rollers, sprockets, drill pipe, etc.*



Hard surfacing rods are quite gravity sensitive during the welding process. Lean the anvil against a cinder block to 45 degrees while welding on the edges. (You will have more of the expensive welding rod on the anvil and less on the floor.)

When welding a cast iron (not cast steel) anvil, a layer of NI rod (high nickel) must be put down first. Build up over the NI rod with Stooddy 2110 (or equal); Unlimited passes (DC reverse); expect 45 Rockwell as welded. For the last three passes (or layers thick), use Stooddy1105 (or equal) 1/8" rod (DC reverse); expect 50 to 52 Rockwell C (if you don't exceed three passes thick).

### **Repair to the Horn:**

If the horn is blunted or slightly broken, put the end of the horn in a coal forge, heat it to bright orange and forge it out to the desired using a 12-lb sledge to back it up and a 2-lb rounding hammer on top.

Repair to the horn of a wrought iron /cast steel anvil can be accomplished with 6010 welding rod as needed. Repairs to the horn of cast iron anvils is usually done by welding with the NI rod and grinding.

### **Minimize the potential for stress cracking from welding:**

After welding and you are sure that there is sufficient buildup to allow for grinding to the desired finish (check with a straightedge), post heat back to 400 degrees or verify with the Tempil Stick that the anvil is still that hot from welding. Pack the anvil in vermiculite (crushed mica available at most nurseries) or wood ashes. This will allow it to cool slowly for a minimum of eight hours.

### **Finish:**

Start with a 24-grit cup stone on a large body grinder. Note it's quite aggressive at removing metal. Be careful to keep it running flat (sparks coming off both sides of the cup stone). Start with 24-grit flex back metal sanding disc and in five or six steps (eg 24/60/100/120/180/240) work down to 240 grit. All edges should be kept sharp and square.

Radius edges to your desired shape with 100 grit or finer sanding disc. Near the anvil step the radii are typically ground to a 3/16" or 1/4" radius and tapering to nearly no radius at the heel of the anvil. The edge of the step and the heel are usually left rather sharp and only broken with a file.

Final polish can be done with a Scotch Brite disc.

## **Upcoming Blacksmithing Classes**

Article by Jennifer Phillips

As many of you know, one of the main benefits of being a members of NCABANA is receiving a scholarship to a class on blacksmithing. But what I don't think many of you know, is what classes are available.

I have composed this list of classes as a way to encourage members to learn more about blacksmithing. Classes in the list vary greatly in length and skill-level required. Several of the classes are for people who have never picked up a hammer before while several more are skills that even master smiths haven't mastered. Some of the workshops are through community colleges so you can earn a certification at the end of a semester while others are just a weekend romp in the forge. Many of these classes are even taught by NCABANA members!

So while NCABANA only has a limited number of scholarships each year available to give out, I would still encourage anyone who has been a member for more than a year & a day to apply for one. But mostly, this list of classes is for everyone to see how blacksmithing is not dying, it's flourishing!

My first school to explore is the John C. Campbell Folk School in Brasstown, NC. Probably the most well-known amongst the membership, it is way down in the corner of the state and while a beautiful drive, it is still a drive. The resident blacksmith there is NCABANA Board member Paul Garrett, who is renowned for his participation in the World Forging Competition in Italy.

Blacksmithing classes at John C. Campbell vary greatly in skill level. Many classes are for those who have never forged before and students can learn everything from how to run a coal fire to how to make their first hammer. Several more classes at JCC are higher level and involve making tables Viking-style ironwork, or even more complex flowers and tomahawks.

The main thing that all the blacksmithing classes at John C. Campbell have in common though is that they are either for a week or a weekend. No semester long blacksmithing classes here and no official certifications for completing the classes. However, JCC is still my favorite for its scenic mountain atmosphere and incredibly high quality workspace.

So without further preamble, here is the list of blacksmithing classes for John C. Campbell Folk School for the rest of 2017:

<u>Dates</u>	<u>Instructor</u>	<u>Class Title</u>
3/5 - 3/10	Kevin Foster	Blacksmithing Techniques, with a Twist
3/10 - 3/12	Kevin Foster	Finishes on Metal
3/19 - 3/25	Elmer Roush	Viking-Style Ironwork
3/26 - 4/1	Pat McCarty	Festival Forging
4/2 - 4/7	Julie Clark	Cock-a-doodle-doo
4/7 - 4/9	Andy Phillips	Forging Ferrous Iron, an Intro to Blacksmithing
4/9 - 4/15	Clay Spencer	Build a Table: Intermediate to Advanced
4/16 - 4/22	Dave Custer	Introduction to Basic, Efficient Forging Skills
4/23 - 4/28	David Cayton	Beginning Blacksmithing Techniques
4/28 - 4/30	Paul Garrett	Basic Blacksmithing: Good Habits
4/30 - 5/6	Doug Merkel	Blacksmithing Sampler
5/7 - 5/13	Bob Alexander	Flowers in Metal
5/14 - 5/19	Matt Jenkins	Good Techniques & Awesome Beats
5/19 - 5/21	Marty Young	Basic Blacksmithing: Hammering Out the Basics
5/21 - 5/27	Jeff Mohr	Blacksmithing for Home & Hearth
5/28 - 6/3	John Scroggin	Get It Hot, Hit It Right
6/4 - 6/9	Bob Alexander	Traditional Chest Hardware
6/9 - 6/11	Mike LaMarre	First-time Forging: Basics of the Craft
6/11 - 6/17	Jason Lonon	Axes
6/25 - 7/1	Chris Winterstein	A Handful of Skills
7/2 - 7/7	Jerry Darnell	Colonial Hardware: Cathedral Hinges & Ring Latches
7/7 - 7/9	Mitchell Latsch	A Blacksmithing Journey
7/9 - 7/15	Greg Price	Ironwork for the Home
7/16 - 7/22	Kenneth Thomas	Blacksmithing: Starting with Fire (Intergenerational)
7/23 - 7/28	Ron Nichols	Welcome to Blacksmithing!
7/28 - 7/30	Ryan Johnson	Tomahawks & Axes
7/30 - 8/5	Walt Hull	Moving Iron: Fundamental Skills of Blacksmithing
8/6 - 8/12	Roberts Elliott	Finding Your Inner Vulcan
8/13 - 8/18	Caitlin Morris	Smithing Made Simple
8/18 - 8/20	Mike LaMarre	Blacksmithing 101: Forge Facts
8/20 - 8/26	Lucas House	Tools! Tools! Tools!
8/27 - 9/2	David & Caleb Buress	Celtic Iron
9/3 - 9/3	David Tucciarone	Fundamentals for Beginners
9/8 - 9/10	David Tucciarone	Forge Welding
9/10 - 9/16	Joe Miller	Critters



<u>Dates</u>	<u>Instructor</u>	<u>Class Title</u>
9/17 - 9/23	Travis Fleming	The Art of Chasing on Metal
9/24 - 9/30	Gary Roath	Blacksmithing Fundamentals
10/1 - 10/6	Susan Hutchinson	Blacksmithing: Building Skills
10/8 - 10/14	David Smucker	Cuts, Twists, & Turns
10/15 - 10/21	Mike Dixon	Hat Racks, Coat Racks, Pot Racks
10/22 - 10/27	Steve Williamson	Dragons, Wizards, & Horses
10/29 - 11/4	Clay Spencer	Traditional Joinery Techniques
11/5 - 11/11	Chuck Patrick & John Kraus	Basic Hand-forged American Knife
11/12 - 11/17	Jack Wheeler	Hammer Useful Heirlooms
11/17 - 11/19	Bob Alexander	Making Useful Items from Junk
11/29 - 12/2	Lyle Wheeler	Beginning Blacksmithing
12/3 - 12/9	Tony Holliday	It's "Holliday" Time!

The next folk school up for discussion is one very close to me: the Penland School of Crafts in Spruce Pine, NC. Also located in the heart of the Appalachian mountains, this folk school offers blacksmithing classes that are one, two, and 8 weeks long. From their website, "Classes are taught by visiting instructors in our well-equipped studios. Classes include topics such as traditional blacksmithing, forging and forming steel & iron, metal sculpture, working with found metal, finishing techniques, and more." So also a lot of variety in skill level here in addition to class-length. For people interested in metalworking in addition to blacksmithing, Penland is a great school for integrating many aspects of similar trades together. For example, they also have CNC classes, welding, & fabricating. However, since NCABANA is a blacksmithing organization, I haven't listed any of those here nor are NCABANA scholarships eligible for non-blacksmithing classes. Finally, another advantage of attending Penland is that credits for their classes are transferable through Western Carolina University towards a four-year degree.

Since some of these classes are a bit longer, the list is much shorter but I've included brief descriptions to help prospective students get a better idea of the contents of the classes. Alright, here is Penland School of Crafts list of blacksmithing-related classes from now through the summer:

**March 12 - May 5, David Jones**

*Multifaceted Fabrication*

With a focus on traditional and sometimes inventive techniques and approaches, we'll dive into the beautiful, limitless world of metal fabrication. Students will make jewelry and/or small-scale sculpture depending on individual interests. Techniques will include sawing, forging, soldering, forming, wire and sheet making, cold connecting, and stamping. The workshop will include information about the use of recycled metals and materials and where to source them. We'll have ongoing demonstrations and critiques, and we'll delve into the history of studio craft in the U.S. and abroad.

**May 28 - June 9, Myra Mimplitsch-Gray**

*Sticks & Stones*

We'll explore the notion that tableware and hollowware forms can be described with sticks and stones—not literally, but in a structural sense: line and mass/volume. We'll cover techniques such as forging, sinking, raising, tube-making, pattern-making, and various construction methods. During the first week, students will produce samples, studies, and collaborative design exercises. The second week will allow for individual projects. Function will be considered within the creative discourse. Abstraction will be encouraged.

**July 9-21, Greg Gerhner**

*Design, Forge, & Fabricate*

Traditional and contemporary, blacksmith and welder, designer and craftsman, forge and fabricate, draw and build. This workshop will focus on an aesthetic merging and balancing of disparate ideas, skills, and methods. Demonstrations and discussions on drawing, forging and fabrication, connections, transitions, and jig-making will lead to some smaller practice pieces and then to the completion of larger finished projects from individual designs. Students are welcome to bring both sketches and alternative materials (wood, stone, glass, etc.) to integrate into a sculptural or functional project.

**August 13-25, William J. Bastas**

*Heat, Hold, Hit, Huzzah!*

This workshop will present comprehensive forging methodology using hand, sledge, and power hammers. We'll learn the properties of metals, efficient forging, ergonomic hammering, and practical metallurgy. Each student will make a pair of double pick-up tongs, a Bastas-style cross pein forging hammer, and a Van Erp-inspired mica table lamp. These projects are platforms for surveying the skills expected of a journeyman smith: drawing, bending, twisting, splitting, punching, upsetting, fire welding, and heat treating. All skill levels will benefit from this systematic approach; intermediate/advanced students will get an extra benefit from comparing this system with their own.

The next option I would like to discuss is community colleges, in particular the Mayland Community College Newland branch. Community colleges are great because they are generally cheaper than a traditional folk school. But you have to pay attention to getting the right amount of bang for your buck. Community colleges appear cheaper because the classes aren't usually all day long like at a folk school. And with that, you won't have to take a week off work to attend just sacrifice a few of your evenings each week. In addition, community colleges are also more likely to offer either transfer credit or a certificate for completion of the class.

Right now the blacksmithing program at MCC is fairly new so only two classes are offered for the spring semester. Here are their dates, descriptions, and fees:

**March 18, 10:00am-5:00pm, Burt**

\$70 (for 6 hrs)

*Blacksmith for a Day Experience*

Join us for a fun and educational day as you are taken through the basic art of traditional blacksmithing. This short course allows the student to be a Blacksmith for a day and allows them the opportunity to decide if a full blacksmithing course is something they would like to pursue without having to invest a load of money. The instructor will have 3 design items available and each student will be allowed to choose one of the projects to create and take home. All materials will be provided. Pack a lunch and bring lots of water as blacksmithing is thirsty work.

**May 23 - October 17, 6:00-9:00pm, Brandl**

\$180 + \$40 supply fee (for 128 hrs)

*Blacksmithing, Certificate Program*

If you like to work with your hands and be creative, learning a trade in the art of traditional blacksmithing might be the career journey for you. Designed to train students in the art of architectural and ornamental metalwork on a professional level, this certification program qualifies successful students to work for and continue their training with a professional blacksmith. Students who successfully complete the program will receive a certificate from Mayland Community College.



Another community college that offers blacksmithing classes is the Haywood Community College in Clyde, NC. Also in the mountains of North Carolina, this community college offers blacksmithing as a part of their jewelry design program of study. But don't let the jewelry making title fool you. There are also knifemaking and advanced wrought metal classes required for this degree in addition to tool making that involves learning tempering and hardening processes. This is definitely one of the most intensive jewelry crafting programs in all of North Carolina.

With all the benefits of a community college attached, Haywood Community College certainly brings a new feel to forging. While their spring semester classes below have already begun (January 9 - May 9), keep this community college in mind for the next semester or year because honestly, these are some of the most impressive class descriptions I've ever seen. Here are their blacksmithing classes for the spring semester, all taught by David Burnette:

### **Hand Wrought Metals**

*Mondays & Tuesdays 6:00-9:50pm*

This course covers the fundamental processes, techniques and tools for heating and forging ferrous and non-ferrous metals. Topics include fire control, use of hammers, tools and traditional techniques for metal shapes. Upon completion, students should be able to heat and use a variety of metals to create tools and shape basic metal projects.

### **Advanced Wrought Metals**

*Tuesdays 1:00-4:50pm or Thursdays 6:00-9:50pm*

This course covers ideas and techniques for designing, heating and shaping metal. Topics include hammer control, use of power tools and advanced techniques such as metal lamination. Upon completion, students should be able to use traditional and contemporary techniques to make objects such as buckles, vessels, pendants, and blades.

### **Basic Knife Making**

*Tuesdays 6:00-9:50pm*

This course introduces fundamental design and technical skills for knife making. Topics include blade processes of forging and stock removal, as well as handle materials and attachment methods. Upon completion, students should be able to select appropriate techniques, materials, and designs to produce a basic functional or decorative knife.

### **Advanced Knife Making**

*Tuesdays 7:00-10:50pm*

This course expands upon basic skills and knowledge of blade making, handle attachment, and ornamentation. Topics include techniques such as laminated blades, ground blades, advanced handle attachment, and decorative elements (inlay, carving, riveting, and stone setting). Upon completion, students should be able to design and finish more professional quality functional and decorative hand-made knives.

### **Jewelry Tool Making**

*Wednesdays 6:00-9:50pm*

This course introduces the fundamental design and technical skills for producing tools used in a jewelry studio. Topics include steel selection, tool design, introduction of hardening and tempering processes with emphasis placed on tools for chasing and repousse. Upon completion, students should be able to select proper steel, design and produce tools for decorative techniques used in the jewelry profession.

## Hand Wrought Joinery

*Wednesday 6:00-9:50pm, offered in the Fall semester*

This course introduces the use of traditional joinery techniques used in the Hand Wrought Metal Profession. Emphasis is placed on the history and processes of the traditional joinery using tenons, mortises, collars, rivets, and forge welded joints. Upon completion, students should be able to create joints for hand wrought metal work using mortise and tenon, collars, and hot wraps.

That is a lot of options for classes. I didn't even have enough room in one *Hot Iron Sparkle* to even try to give class descriptions for all the blacksmithing classes at the John C. Campbell Folk School. But one last thing. In addition to all of these places and more that offer blacksmithing classes, NCABANA members can also get a scholarship to take a private class or workshop. Applicants in the past have used scholarships for instruction from professionals such as Peter Ross and Brian Brazeal. There are also many businesses that teach blacksmithing workshops like Big Blu Hammer, Calerin Forge, and the Jackson County Green Energy Park to name a few. These are the ones that I know of and there are so many more out there across the United States, just take a look at ABANA website's class list where there are over a hundred schools listed.

In closing, I want to remind everyone of the requirements for a scholarship if that is a route you want to take for your class. The applicant has to be a NCABANA member for a year and a day and in good standing with the organization. If the applicant is chosen, the scholarship money goes directly to the school or instructor and is for tuition, materials, room & board. The student has to pay any additional expenses such as gas for travel. Right now, scholarships are \$1,000 for a week long class or \$100 a day for private instruction. Once the applicant has been selected and attended their class, the student is required to submit a written report to the Hot Iron Sparkle editor for publication in the newsletter. The student also has to demonstrate a technique that was learned at the class at a NCABANA meeting. And finally, the student has to donate an object they made to NCABANA for auction. While all of these requirements may seem daunting, the student has up to 6 months after they complete the course to fulfill the requirements so no rush at all. For the full scholarship rules (since I'm afraid I might have forgotten something), please see the NCABANA website at [www.ncabana.org](http://www.ncabana.org) or email me (contact info for Jennifer Phillips also on page 2).

For convenience, I have placed the scholarship application form on the next page. So photocopy it or tear it out, then mail it to the vice president Garret Dunn (contact info on page 2). If you would prefer to type and email an application, please send me an email and I can give you the digital version of the form (contact info for Jennifer Phillips also on page 2). To end, I thought I'd add a few pictures of former scholarship recipients and their big smiles.



*Pictured to the left is Andy Phillips holding his daughter Ferrous. Andy attended a workshop with famous blacksmith Brian Brazeal. On the ground, you can see the fruits of his labor: a couple of completed hammers, several more hammer heads, a hardy tool, and a row of copper rings.*

*Pictured to the right is Paul Spainhour. Paul took a class at the Penland School of Crafts that focused on lamps and lighting. You can see Paul's forged bamboo lamp stand resting on the anvil.*

*Also, make note of everyone's huge smiles. Learning can be fun, especially if your main tool is fire!*





# Dean Taylor Memorial Scholarship Application Form

Name  
Address  
Phone  
E-mail

Member Since (date)

Scholarship Type: (circle one)      Class      Mentor      Student Supplemental  
Requested Amount

Class Date(s)                                  Scholarship Obligations Due

1. Describe your blacksmithing experience, how many years, classes taken, jobs, kind of work you do, how many hours you forge in an average week or month.
  
2. Goals for your blacksmithing career, what you wish to do as a blacksmith.
  
3. Describe your participation in the blacksmithing community: teaching, demonstrating, craft shows, writing articles, belonging to and attending local groups, attending conferences, etc.
  
4. Describe the course and why you need a scholarship to attend.
  
5. Do you sell blacksmithing items you make? What type items? How do you sell?
  
6. Include at least 3 photos of some of your work.

Signature    Date

## Iron Concepts: Seller's Beware!

Article by Andy Phillips



*This series is named in honor of a long gone blacksmith's shop in East Bend, NC. Iron Concepts was one of the first large blacksmith shops I had ever seen and to this day serves and an inspiration to me. I find myself still referencing what I learned there at NCABANA meetings years ago. It still holds a special place in my heart, hence an iron concept.*

Every year during the holidays, there is a rush. Christmas, as far as deadlines go, is a force of nature. People have family coming into town, they are going to have fires in the hearth and they want everything perfect. It seems only naturally that after the similar smaller rush around Thanksgiving that the void shortly thereafter would find the commitments made to complete the orders coming in and that time by Christmas. On any given year, there are roughly 30 days between Thanksgiving and Christmas. It always seems like there would be more time than that but alas, it isn't so. I have been a full-time blacksmith for 16 years and I would venture to say that in those sixteen years, I have not found an exception to this. I, or the people I work with, overcommit and we find ourselves in a rush leading up to that fateful week.

Now, if you have ever witnessed the darkness that dwells in the sweetest of people around the holiday (for instance if you take the last can of yams away from grandma), imagine grandma's wrath when she finds out her fireplace screen is not going to be ready. What is it Freud said about staring into the darkness?

So during the Christmas season, I find myself thinking a lot about customer service and dealing with customers in general. You can't make everyone happy. Seeing people's disappointment and sometimes anger that we cannot commit to finishing their work before Christmas is only supplanted if we were committed and were then unable to deliver.

I think this is a normal cycle, Before there was Christmas, blacksmiths where dealing with some other force-of-nature-style deadline. Sometimes you win and sometimes you mess up. You may build your business on your word being your bond when it comes to deadlines, but some things are out of your control and I have had good luck throughout the years to have nothing but understanding and compassion from most of my customers when this sort of thing happened.

Over the last couple of years, however, I have noticed something happening. It is because of this observation that I have been talking about this with the guys at the shop and in my videos as well as why I am writing about it now.

Normally in these articles I try not to make this more of a blog of what is going on at Oak Hill Iron and Big Blu, So every time I give an example of what is going on in our shop or a specific problem we are having, I do not do so lightly.

Let me give you some context before I tell you what has happened to us. This year for Big Blu has been outstanding; demand for our product has been through the roof. Our products being on Forged in Fire along with growth in the blacksmithing and knifemaking community and a healthy cross pollination from the farriers' community, has left us struggling to keep up with orders and keep our shelves full. We are not a huge company (as many of you know) and often when people see our shop they wonder where they power hammer factory is. Over the years, we have focused on efficiency and quality rather than multiple production lines and large numbers.

All of our tools are made by artists and blacksmiths in a blacksmith's shop and the goal is that that shines through in the things we make. But I could go on for pages like this. Back to the topic at hand.

Leading up to Christmas, our stock of hand hammers was being hit hard. We knew the cutoff for Christmas would come early and the inevitable aftershock the week after Christmas would be difficult. So, we added disclaimers to our website and worked with customers that contacted us to make sure their shipments went out when they needed to. As the week lead up to Christmas, there were many customers that we had to tell that their hammers and tooling they were about to order would unfortunately arrive after Christmas.

We are not a large corporation. The company is owned by two gentlemen: Dean and Josh. Josh deals with every customer we have. If you call the number on our website, you will place your order with one of the owners of our company. This gives you an idea of how close to the metal we all are in our shop. There is no call center. No endless hold loop. Yet we service a staggering amount of customers every year.



Three days before Christmas, we had customers that were disgusted with us. Disgusted that they were calling to place an order three days before Christmas and we were out of stock. They could not get their items for Christmas. Some of the demands and threats were mind-boggling. With the weeks following Christmas and New Year's, as we closed all of our backorders and restocked all of our vendors, the rage just kept coming with one customer even threatening to make a negative YouTube video if we didn't refund his shipping because we had "lied to him". We had talked to him twice giving him realistic ship-by dates we held up our end of the bargain and met every deadline we set out. His package arrived right on time, just after his last angry call.

I accept that there are angry people out there. I also won't lie and say we never miss a deadline. People have a right to be cross with us sometimes. If they are mad, they can get an apology from the owner of the company. But we don't have unhappy customers. If there is something wrong with a product we fix it. If it doesn't live up to expectations, we make it better. I feel we impress our customers and rarely does anyone call back disappointed.

I feel this is relevant because I feel that most of the smiths in our community strive for the same values in their businesses. Some smaller and some larger, but all dealing with the same problems.

A lot more than normal customers both of our tooling and of ironwork come in guns blazing, ready for a fight, before we can ever get the product in their hands. They are mad and for no reason, like they are talking to an out of country call center that has had them on hold for an hour and the thing is, I'm hearing this from lots of makers, vendors on Etsy, and custom fabricators.

After my first video on this subject, I got a great deal of response. Words like entitlement and impatience came up a lot. Instant gratification got thrown around as well. But is this a new thing? Is this what has changed? Human beings have always been a rough group to do business with; I don't think that is new. If we all sat around and gave our "worst of" stories, we could come up with some doozies I'm sure. However, I think if we talk to a group of smiths from 100 years ago, they may have some too. But there is a difference here. The number of customers that any job shop deals with is growing. I, for one, see more new faces and get calls from customers than I would have ten years ago. With the way commerce is now, it's not unusual for a small-town shop to be doing business across the country. If there is a bad egg in every bunch, then if you deal with more bunches you deal with more bad eggs.

I don't think this accounts for everything. One of the emails I got on this subject talked about the varying degrees of mental illness that all people have. I'm used to seeing the crazy one from time to time, and I don't mean Apple crazy ones, but what hurts the worst are the good people. The ones you want to like who turn into monsters for no reason. That's when it hits you where it hurts. When you have a customer that is a friend and you miss one phone call. Next thing you know, you are thumbing thru your messages to find venom filled text messages. I think this is a relatively new thing, and it is something that we are being taught.

I found myself talking to a representative from Adobe the other day while changing my subscription. I found myself highly skeptical of this rep's comments. I was being redirected to the same script. To make progress on getting what I wanted, I had to get short with this rep and at that point I was passed up the tier. I then got what I wanted. If I need customer service, for the bulk of the bigger things I buy; this is the road I have to go down to get what I want. Yell at people until someone helps you. And if it's that way 9 out of 10 times, then why not get what you want every time.

The thing is that big businesses are training customers to be this way and it's hurting small businesses. Small businesses are a big part of our country and will be for a long time. To be to the point, this is no different than big chains putting little mom and pop's out of business. Not so drastic to kill small businesses, just poison them a bit.

Truth is, you can't stop the coming storm and I think it will get worse before it gets better. But what you can do is take this as an opportunity to make your customer service ironclad and I don't mean never miss a phone call. Rather, let customers know exactly who you are up front. Don't assume they know, just because you have an old timey blacksmith's logo, what kind of business you are. Let them know how you treat your customer and how you want to be treated as well. Get good at defusing pissed off customers and get good at forgiving them for being that way because you can't take it to heart. They are entitled, whiny, self-centered, and mentally unstable and being mad at them is about on-par with being mad at the rain. It's not your job to fix it and chances are you can't. It's your job to make them happy, take their money, and survive to do business another day.

## Letter Opener

Article by Tom Latane

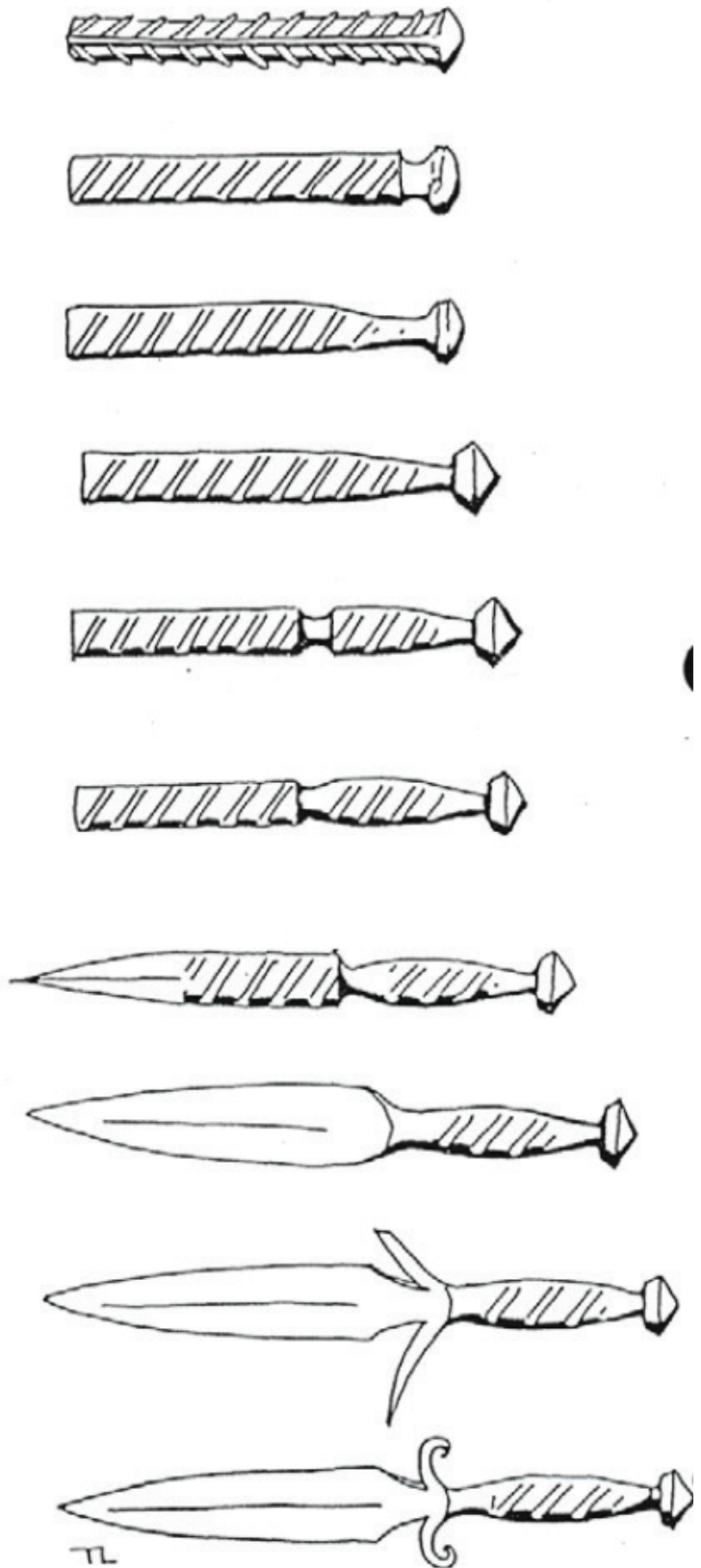
Reprinted with permission from *On the Anvil*,

Newsletter of the Philip Simmons Artist Blacksmith Guild

The drawing [to the right] shows the steps I used making a letter opener from reinforcement rod from the Berlin Wall. Lots of smiths bought pieces at the past two Metalsmith Madnesses thanks to donations by Doug Johnson.

The project can be done from any rebar or round rod. Round rod will not have the nice decoration on the handle.

1. Upset end slightly.
2. Fuller around and below upset.
3. Draw down to fullered depth (do not reduce to less than 1/2 the original diameter).
4. Dress ball or knob on end over anvil edge.
5. Fuller to define handle allowing slightly more than 1/2 bar length for blade.
6. Draw down to fuller depth on handle side taking care to preserve a portion of ridges at center of handle.
7. Point blade drawing squarely.
8. Flatten blade in plane with continuous ridge on each side of bar. Spread with cross or straight peen for greatest width.
9. Chisel away a portion each side of blade for guards. Draw guards to points.
10. Scroll guards, dress with file.



Reprinted from Guild of Metalsmiths, July 1992



## From the Shop of Samuel Yellin

Article by Doug Wilson

Photos provided by Clay Spencer

I received a CD of images from Clay Spencer. On that CD were over 2,000 photos of works from Samuel Yellin's shop. These had been taken in the early 1970s by Jeff Graves, who was apparently working for a summer with George Dixon in the last days of the Samuel Yellin Metalworks shop. I will be sharing these photos in the coming issues of The Hot Iron Sparkle. The quality of the photos is not always the best. However, they are in many cases the only available documentation of Samuel Yellin pieces.

















## **Metal of the Quarter: Hot Versus Cold Roll Steel**

Article by OnlineMetals.com

(<http://blog.onlinemetals.com/hot-rolled-vs-cold-rolled-steel/>)

Reprinted with permission from The Prairie Blacksmiths Association

### **Steel Rolling**

When we discuss the two types of rolled steel, it's best to first understand what it means to roll steel. Rolling is a metal forming process in which metal stock passes through one or more pairs of rolls to reduce the thickness and to make the thickness even throughout the material, as if rolling dough. Rolling is classified according to the temperature of the metal rolled. If the temperature of the metal is above its recrystallization temperature, then the process is known as hot rolling. If the temperature of the metal is below its recrystallization temperature, the process is known as cold rolling. In terms of usage and volume, hot rolling processes more than any other manufacturing process and cold rolling processes the most by tonnage out of all cold working processes. Roll stands holding pairs of rolls are grouped together into rolling mills that can quickly process metal into products such as structural steel I-beams, angle stock, channel stock, bar stock, and rails. Most steel mills have rolling mill divisions that can convert the casting products into finished products.

### **Hot Roll Steel**

Hot rolling is a process involving rolling the steel at a high temperature (around or over 1700 degrees F) which is above the steel's recrystallization temperature. When steel is above the recrystallization temperature, it can be shaped and formed easily and the steel can be made in much larger sizes. Hot rolled steel is typically cheaper than cold rolled steel due to the fact that it is often manufactured without any delays in the process, and therefore the reheating of the steel is not required (as it is with cold rolled). When the steel cools off, it will shrink slightly thus giving less control on the size and shape of the finished product when compared to cold rolled. Hot rolled products like hot rolled steel bars are used in the welding and construction trades to make railroad tracks and I-beams and are used in situations where precise shapes and tolerances are not required.

### **Cold Roll Steel**

Cold rolled steel is essentially hot rolled steel that has had further processing. By processing further in cold reduction mills, where the material is cooled (at room temperature) followed by annealing and/or tempers rolling. This process will produce steel with closer dimensional tolerances and a wider range of surface finishes. The term Cold Rolled is mistakenly used on all products, when actually the product name refers to the rolling of flat rolled sheet and coil products.

When referring to bar products, the term used is "cold finishing", which usually consists of cold drawing and/or turning, grinding and polishing. This process results in higher yield points and has four main advantages: *Cold drawing increases the yield and tensile strengths, often eliminating further costly thermal treatments. Turning gets rid of surface imperfections. Grinding narrows the original size tolerance range. Polishing improves the surface finish. All cold products provide a superior surface finish and are superior in tolerance, concentricity, and straightness when compared to hot rolled.*

Cold finished bars are typically harder to work with than hot rolled due to the increased carbon content. However, this cannot be said about cold rolled sheet and hot rolled sheet. With these two products, the cold rolled product has low carbon content and it is typically annealed, making it softer than hot rolled sheet. Usage should include any project where tolerances, surface condition, and straightness are the major issues.

**Contact us** for all your hot & cold roll steel needs: (800) 704-2157

## Tool of the Quarter: Post Vise

The tool for this quarter is the trusty post vise, also known a leg vise. The picture to the right show a typical post vise in a blacksmith's shop.

The main ways that most smiths use a vise is for doing twists, hammering a piece of metal that is being held very still, or to use a jig. In the picture to the left, you can see Paul Spainhour using a post vise to hold a piece of pipe he is forging while he strikes. Posts vises are also great for doing twists because they give you such a good angle to count your twists.



I do want to bring up bench vises while we are on the topic of vises. While bench vises do well for simple operations such as filing or twisting, they don't hold up as well over time with heavier wear operations such as hammering. The first reason is in the jaws. The jaws on a bench vise have usually been hardened and will sometimes crack with a stray hammer blow while post vises have jaws made with a milder steel or a steel that hasn't been hardened. So if you are a master smith that never misses a blow, you still shouldn't opt for the often cheaper bench vise to strike on

since the post vise's leg also serves to rebound hammer strikes, similar to the way an anvil does. Posts vises are designed with the screw free-floating in the frame and won't take any shear forces when hammered while the bench vise is held together entirely by the screw, which will take all the load no matter what. And one final bit of warning for a bench vise, this might only be a rumor but I read that if it gets cold enough at night and your jaws are firmly together, they can crack when the metal expands from the temperature changes so you should always leave at least a little gap between the jaws during cold weather. But winter seems to only be a rumor so you can take that at face-value. So if you do opt for the much cheaper bench vise just do so with the knowledge that it won't last for anywhere close to as long as a post vise.

Alright, sorry I got stuck on the difference between a post vise and a bench vise but just make sure to do your homework before any important tooling purchase, especially since every blacksmith needs a vise of some sorts to hold the hot metal. I'll leave you with this amazing picture to the right of a meeting with the Central Virginia Blacksmith Guild doing a twist demonstration on a post vise with what looks like 2" square stock. Super impressive guys! Wish I had been there!





## Blacksmithing Fun of the Quarter

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Time for the fun part of the issue. Our first list has been passed around the internet more times than I can honestly say but for all of those analog smiths out there, I want to make sure they are in on the joke as well. Also, I can't remember right now which organization, but one of the main ones out there had these printed on T-shirts a while back. Alright, now to the fun.

### You know you're a blacksmith when...

1. There's no such thing as junk metal.
2. You misbehave just so Santa will give you coal in your stocking.
3. You catch on fire and it's no big deal.
4. "Smoking coke" means something completely different to you.
5. Pain and bleeding are less important than getting the job done.
6. You have absolutely no clue how to correctly charge for your work.
7. You get insulted when someone asks you if you shoe horses.
8. You know what an "anvil shoot" is.
9. "Stainless steel" is almost a four letter word to you.
10. The phrase "I could make that" really means "I'm too cheap to buy it."

Oldies but goodies. Now we have some extra fun this quarter with another popular list. Since this is the ARTIST blacksmithing association, I thought quite a few of you could appreciate these as well.

### Things not to say to an artist or crafter...

1. Can you do a sculpture or artwork for this event for free? It will be great promotional piece for you. Get you some word of mouth.
2. Wow! You charge THAT much? You make it look so easy.
3. If you don't make it so detailed, can I get it cheaper?
4. If you use that piece from last year and change it a little, can I get it cheaper? You already have most of it done.
5. You are so lucky you don't have to "really" work. You just make what you want & do a hobby every day.
6. You are a really good artist! Can you build a replica of my dog?
7. My son/daughter is 9 and is a really good artist just like you.
8. I'll just get my friend to make me one of those.
9. You know what you should make...
10. Do I get a price break if I buy two?
11. I can make that myself.
12. How do you make this?
13. Kids, this is what happens if you don't go to college.
14. I can buy that at Walmart for \$3.99.

Thank you for all your fun submissions and keep them coming for next time. I hope you all got as much of a laugh from these as I did. Remember that smithin' can be fun on occasion. Until next time!

# Calendar for 2 Quarters

**Key:** \*Local Chapter Meeting  
 +Statewide Meeting  
 ^Special Event

February						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2 ^	3 ^	4 ^
5 ^	6	7 *	8	9	10	11
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26	27	28				

March						
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April						
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May						
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28	29	30	31			

June						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
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11 *	12	13	14	15	16	17 *+
18	19	20 **	21	22	23	24 +
25	26	27	28	29	30	

July						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4 *^	5 ^	6 ^	7 ^	8 *
9 *	10	11	12	13	14	15 *
16	17	18 *	19	20	21	22
23	24	25	26	27	28	29
30	31					



**February:**

- 2-5** METALfab 2017  
 NOMMA Convention  
*San Antonio, TX*
- 7** Triad Blacksmiths: 6:30pm  
*Winston Salem, NC*
- 12** Southern Foothills Blacksmiths  
 *Mooresville, NC*
- 18** Triad Blacksmiths: 9am  
*Winston Salem, NC*
- 21** Wilkes Teaching Forge: 7pm  
*Millers Creek, NC*
- 21** Brasstown Blacksmiths: 5pm  
*Brasstown, NC*
- 25** Dan Boone's Pasture Party  
*Louisa, VA*

**May:**

- 2** Triad Blacksmiths: 6:30pm  
*Winston Salem, NC*
- 13** Triangle Blacksmiths Guild  
*Raleigh Area*
- 14** Southern Foothills Blacksmiths  
*Mooresville, NC*
- 18-20** SBA Conference  
*Madison, GA*
- 20** Triad Blacksmiths: 9am  
*Winston Salem, NC*
- 23** Wilkes Teaching Forge: 7pm  
*Millers Creek, NC*

**March:**

- 7** Triad Blacksmiths: 6:30pm  
*Winston Salem, NC*
- 11** Triangle Blacksmiths Guild  
*Raleigh Area*
- 12** Southern Foothills Blacksmiths  
*Mooresville, NC*
- 18** Fish Fry at Larry Crews' Shop  
*Boonville, NC*
- 18** NCABANA 1<sup>st</sup> Q Meeting: 9am  
 Oak Hill Iron & Big Blu Hammer  
*Morganton, NC*
- 21** Wilkes Teaching Forge: 7pm  
*Millers Creek, NC*

**June:**

- 6** Triad Blacksmiths: 6:30pm  
*Winston Salem, NC*
- 11** Southern Foothills Blacksmiths  
*Mooresville, NC*
- 17** Triad Blacksmiths: 9am  
*Winston Salem, NC*
- 17** Hammerstock  
*Gum Spring, VA*
- 20** Brasstown Blacksmiths: 5pm  
*Brasstown, NC*
- 20** Wilkes Teaching Forge: 7pm  
*Millers Creek, NC*
- 24** NCABANA 2<sup>nd</sup> Q Meeting: 9am  
 Dixie Classic Fairgrounds  
*Winston Salem, NC*

**April:**

- 4** Triad Blacksmiths: 6:30pm  
*Winston Salem, NC*
- 9** Southern Foothills Blacksmiths  
*Mooresville, NC*
- 15** Triad Blacksmiths: 9am  
*Winston Salem, NC*
- 18** Brasstown Blacksmiths: 5pm  
*Brasstown, NC*
- 18** Wilkes Teaching Forge: 7pm  
*Millers Creek, NC*
- 29** Fire on the Mountain  
*Spruce Pine, NC*

**July:**

- 4** Triad Blacksmiths: 6:30pm  
*Winston Salem, NC*
- 4-7** CanIRON XI  
*Cloverdale, British Columbia*
- 8** Triangle Blacksmiths Guild  
*Raleigh Area*
- 9** Southern Foothills Blacksmiths  
*Mooresville, NC*
- 15** Triad Blacksmiths: 9am  
*Winston Salem, NC*
- 18** Wilkes Teaching Forge: 7pm  
*Millers Creek, NC*

## 1<sup>st</sup> & 2<sup>nd</sup> Quarter Meetings

March 18, 2017  
Demonstrations start at 9am

Oak Hill Iron  
Home of Big Blu Hammer  
3308 Frank Whisnant Road  
Morganton, NC

June 24, 2017  
Demonstrations start at 9am

Triad Blacksmiths  
Dixie Classic Fairgrounds  
421 27<sup>th</sup> Street NW, Enter through Gate 9  
Winston Salem, NC



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## Local Group Meetings

### **Triad Area Blacksmiths**

Dixie Fairgrounds, Winston Salem, NC  
Marshall Swaringen  
marshall@swaringen.com  
(336) 998-7827  
1st Tuesday at 6:30PM for demos  
3rd Saturday at 9AM for business & all day forging

### **Southern Foothills Blacksmiths**

B2 Designs, Mooresville, NC  
Steve Barringer  
steve@powerhammerschool.com  
(704) 660-1560  
2nd Sunday each month

### **Triangle Blacksmith Guild**

Raleigh-Durham, NC  
Randy Stoltz  
rhstoltz@gmail.com  
(919) 481-9263  
2nd Saturday in odd # months at various locations

### **Brasstown Blacksmiths**

John C. Campbell Folk School, Brasstown, NC  
Paul Garrett  
pgarrett286@gmail.com  
(704) 604-1777  
3rd Tuesday in even # months, 5-8PM

### **Wilkes Teaching Forge**

Lyle's Shop, Millers Creek, NC  
Lyle Wheeler  
ncchairmaker@gmail.com  
(336) 838-2284  
3rd Tuesday of each month, 7PM

## NC ABANA Meetings

**1<sup>st</sup> Quarter 2017** – March 18, 2017  
Big Blu Hammer & Oak Hill Iron  
Morganton, NC

**2<sup>nd</sup> Quarter 2017** – June 24, 2017  
Dixie Classic Fairgrounds  
Winston Salem, NC

**3<sup>rd</sup> Quarter 2017** – August 26, 2017  
Bill Brown's Shop  
Linville Falls, NC

**4<sup>th</sup> Quarter 2017 Extra** – November 3-4, 2017  
John C. Campbell Folk School  
Brasstown, NC

## Other Events

**Fire on the Mountain** – April 29, 2017  
Spruce Pine, NC

**SBA Conference** – May 18-20, 2017  
Madison, GA

**Hammerstock** – June 17, 2017  
Gum Spring, VA

**CanIron XI** – July 4-7, 2017  
Cloverdale, British Columbia

**Dixie Classic Fair** – September 29 to October 8, 2017  
Winston Salem, NC

**NC State Fair** – October 12-22, 2017  
Raleigh, NC

You are welcomed to attend any of the local group meetings.  
Please contact the host to confirm date, time, and location.  
For all the latest events, visit our website at:

[www.ncabana.org](http://www.ncabana.org)

# North Carolina Artist-Blacksmith's Association of North America



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## First Quarter Meeting of NCABANA

March 18th, 2017

Oak Hill Iron

Home of the Big Blu Hammer

3308 Frank Whisnant Road

Morganton, NC

Demonstrator: Seth Satterfield  
Iron Artisan

Seth is a full-time blacksmith in the state of Florida. He found his calling in blacksmithing through watching demonstrations at an ABANA conference and is passionate about the craft. As the all-day demonstrator for this event, we are sure to learn a lot from a very accomplished smith.

